

# Reviewing the orchard survey in Germany 2017

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## Introduction:

This paper gives background information about the new data collection procedure and the processing system between the statistical offices of the Länder, the Federal Statistical Office of Germany and the data delivery to the European Commission in terms of the upcoming orchard survey in Germany.

The orchard fruit survey has been carried out every five years in the Member States of the European Union. The purpose of this survey is to measure and characterize the production potential of fruit cultivations intended to produce for the market. Information on the area of commercial tree orchard for the main varieties of orchard fruit which has been cultivated in Germany will be available. Due to the climate effects, this national survey will be carried out for apples, peaches, cherries, plums, and mirabelles.

Reducing respondents' burden is one of the main priorities of the Federal Statistical Office of Germany. On the other hand there are permanent increasing requirements for statistical surveys to measure the changing effects of the economy. Therefore Statistical Offices have to be more and more flexible in terms of data collection systems. Figures from official statistics have to produce faster on high quality standards (Code of practice, efficient quality management, harmonized data, definitions and methodology within the Member States of the EU). To fulfill all these standards Germany uses modern IT systems and standardizes the working processes of the data collection system.

This paper points out the steps which have been done on the example of the orchard survey 2017. This survey will be carried out from January 2017 to June 2017.

With reference to the last survey in 2012 the methodology including the processing system has to be modified completely.

Modifications, which are related to decrease the burden of the respondents:

- shortening the questionnaire,
- shortening the list of varieties for apples,
- boosting the electronic reporting channel for the respondents,
- standardized online questionnaire.

Modifications, which are related to optimize the working processes:

- survey portal,
- survey data base,
- input data base (DatML/RAW format),
- data protection,
- calculation of the standard error,
- automatic processing system for publication tables for Germany and the statistical offices of the Länder.

The German orchard survey is a decentralized statistic. The coordination as well as technical and methodological preparation is under the control by the Federal Statistical Office. The state offices of the "Länder" are carrying out the questionnaires of the survey and are responsible for the data collection procedure. After finalization of the survey the "Länder" have to prepare the state results and deliver it to the Federal Statistical Office. Here, the results for Germany by states will be calculated and transmitted to Eurostat.

The German orchard survey is an integral part of the German Business Process Model of Official Statistics. As a result, these standardized processes ensure to improve the statistical governance and the quality of its statistical data with a reduction of the administrative burden.

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## Modifications, which are related to decrease the burden of the respondents

In comparison with the previous survey in 2012 some statistical variables could be eliminated from the questionnaire.

- Distance between trees
- Distance between rows
- Calculation of cross area planted and net area planted
- Written information to name and address of the plantation

Instead, the farmer enters the planted area for all varieties of orchard fruits. A pilot test showed that this area is well known by the orchardists.

The following table shows the efforts which have been done to reduce the list of varieties for apples:

*Table 1: Shortening the varieties for apples*

<b>Varieties for apples</b>		
Minimum requirement from the EU Regulation	Orchard survey 2012	Orchard survey 2017
17 different sorts for dessert apples	89 different sort for dessert apples	72 different sorts for dessert apples
Sorts for industrial processing is not relevant	55 different sorts of apples for industrial processing	Will not be asked again

The legal basis of the Regulation (EU) No 1337/2011 described that only results of 17 different sorts of apples should be reported to Eurostat. Our users in Germany have a strong national interest to expand the different sorts for apples and peaches. This information is very important for national market analyses. One aspect is to observe the market trends of new sorts for apples and peaches. Nevertheless it is a success to shorten the list of varieties for apples in 2017. It decreases the burden of our respondents.

Since 2013 the Federal Statistical Office of Germany has boosted the electronic reporting channel for the respondents. Due to this purpose the law on statistics had to be updated. In paragraph 11a of the Federal Statistics Law the electronic data transmission for the respondents is explained: "If electronic procedures are made available to establishments and enterprises for the purpose of submitting data to be collected for federal statistics, they shall be obliged to use these procedures". If farmers do not use computers or do not have access to the internet they are obliged to fill out a paper questionnaire.

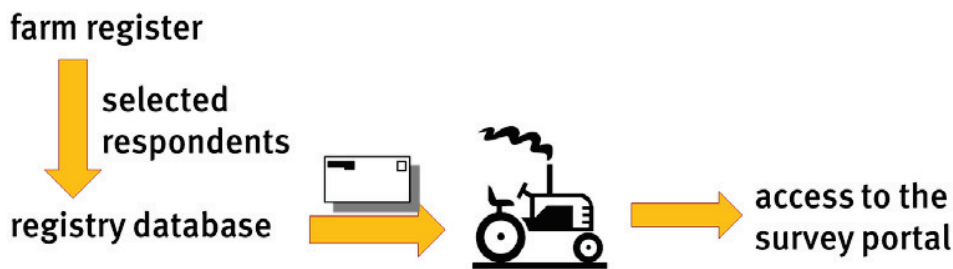
Online questionnaires in the field of agricultural statistics are characterized by a uniform appearance. It is a mission to get a greater standardization of all online questionnaires in the agricultural sector. This has the following advantages:

- Recognition factor for the respondents
- Optical attractive design
- Reduction of incorrect data

## Modifications, which are related to optimize the working process

The central control element for all agricultural surveys is the German farm register. It is the frame of our selection processes to determinate the reporting population in different surveys. The farm register is constantly updated by administrated data (ICAS, key results of previous surveys, agricultural employer's liability insurance association, laying hens register, information database for cows, insurance against accident and occupation disease, etc.). Therefore it is the basis for the specification of the reporting population.

Figure 1: Selection process of the respondents



In this electronically and automatically process the statistical state offices select the orchardists and transfer name and address to a registry database. All orchardists with a cultivated area of 0.5 ha and more in Germany (complete survey) have to report information on orchards. The participation to this survey is mandatory.

The selected farmers receive a letter with a hyperlink and password and get access to the survey portal. It is a common platform of the Federal and State Statistical Offices for all respondents, with

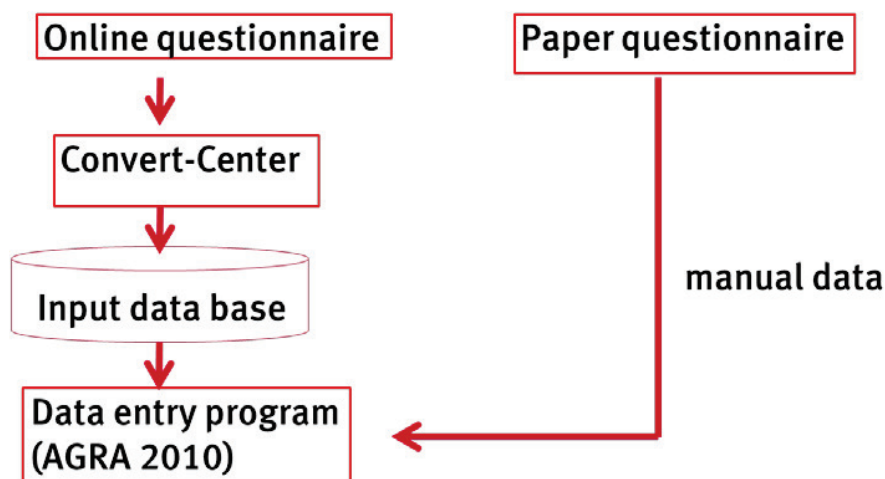
- Central access for all online surveys
- Background information for the respondents
- Key issues for the surveys
- Motivation to join the survey
- Legal obligations
- Transfer to the online questionnaire portal

All online questionnaires which are currently in progress can be selected from a pull down menu of the survey portal. Thus, the survey on orchards which will take up its work in 2017 can be selected on time by the orchardist.

After finalization of the online questionnaire the data passes via convert-center to the input database of each statistical state office. The convert-center works in the background fully automatically and it has two main tasks:

- It distributes the row data of the orchardists to the input data base of the “Länder”. With the support of a statically identifier a clear identification to a specific survey is ensured.
- The format of the data in the input data base is DATML/RAW. Unfortunately the data entry program in the field of agricultural statistics (AGRA2010) is not able to read it. Therefore the covert-center has to change this data structure into a flat format (ASCI, txt, csv).

Figure 2: Data flow process



It can be expected that around 10% of the respondents ask for derogation and send a paper questionnaire back to the State Offices. In these cases the data collection has to be done manually.

Finally, the data entry program AGRA 2010 includes all electronic information of the survey.

Figure 3: Further steps up to the publication



Figure 3 describes the workflow from the data collection process up to the publication of the figures. AMT is the abbreviation for “Agra-Management-Tool” and is an important requirement for the publication procedure. This tool has the following main tasks:

- uploading state specific raw data to a common platform
- disclosure of data protection cases
- calculation of standard errors
- preparation of publication tables

With the support of AMT each statistical state office has the possibility to download its publication tables on a regional level. The Federal Statistical Office downloads the publication tables for Germany by “Länder”. The calculation of standard error is important for the accuracy of the results. Usually it will be published together with the figures. Because of a complete survey it will not be the case for the orchard survey.

The publication tables of the orchard survey will be summarized in subject matter series of the Federal Statistical Office Homepage. A quality report will be attached. The documents and charts are free of charge and can be downloaded as -pdf or -xls versions. It is foreseen to publish the results in September 2017. After that the figures will be transmitted to Eurostat.

### Perspective to year 2023

Agricultural data needs have to be developed further due to the changes in the policy context (e.g. new CAP, environmental issues, climate change, rural development aspects). The Farm Structure Survey (FSS) is the backbone of agricultural statistics. It is used for monitoring the structural changes in farms and the farming practices. The legal basis for FSS expires after the 2016 survey and hence a new legal framework is needed for the period 2020–2027 in order to continue the existing data series by providing good quality information on the (changes in) agriculture. At the same time it is necessary to find a way for providing quality data to feed the new and ad-hoc data needs.

Currently the European Commission is working on a new regulation on integrated farm statistics (IFS) together with the Member States. It can be assumed that the next orchard survey for the year 2022 will not be carried out as a separate survey. In this context Eurostat proposes to integrate the orchard statistics into a new proposed Framework Regulation on Integrated Farm Statistics (IFS) as orchard module with the aim of:

- integrating better of structural statistics
- decreasing further the burden on respondents
- meeting better the user needs

by the year 2023.

The integration of such a special survey like the survey on orchards into the IFS in combination with other complex modules requires the development of an appropriate methodological system. Germany is working on this issue and supports approaches to decrease the burden of the respondents further whilst maintaining a high level of data quality.